

## ABSTRACT

A device and method for handling Multiprotocol Label Switching (MPLS) label stacks. An incoming label mapping (ILM) table is stored in a first memory. A received packet's label stack is accessed, and an entry corresponding to a top label of the stack is read from the ILM table. A number of other entries are also read from the ILM table, and these other entries are cached in a second memory.